Unpacking the New Urban Food Agenda: The Changing Dynamics of Global Governance in the Urban Age

Introduction

The mounting recognition of the failures of global governance frameworks in tackling food system challenges (McMichael, 2012; Sexsmith and McMichael, 2015; Spann, 2017) has drawn attention towards the possibilities of *the urban* as the strategic scale of intervention (UN, 2015; UN-HABITAT, 2017). Academics have widely documented the emergence of new 'urban' spaces within the current multiscalar food governance meshwork -- including municipal food policy councils (Morgan, 2015), place-based food partnerships (Lever *et al*., 2019) and transnational configurations such as the Milan Urban Food Policy Pact (MUFPP) (Moragues-Faus and Sonnino, 2019). The increasing discursive power of food as an urban issue is articulated also by institutional actors such as the Food and Agriculture Organisation of the United Nations (FAO) and the World Bank (FAO, 2018a; 2019; World Bank *et al*., 2017), which are giving prominence to the *urbanised* nature of food systems and their role in perpetuating (and, consequently, addressing) complex global socio-environmental crises such as climate change.

The growing attention directed towards the relationship between cities and the food system has not yet translated into critical efforts to unpack the 'urban' and engage with the ways in which it is discussed, utilised and implicated in food governance debates within international development discourse. To address this gap, in this paper we move beyond the "methodological cityism" (Angelo and Wachsmuth, 2015) that informs research on

urban food, which has prioritized the efforts enacted by specific cities over and above critical examinations of the key drivers of an explicitly globally-orientated new urban food agenda. Drawing upon the analysis of international policy documents and interviews with stakeholders from prominent global development organisations, we ask: What 'kind' of urban age food politics are being promoted, by whom and for whom in the international political milieu of the 'post-Quito' development discourse? In what ways are conceptualisations of 'the urban' deployed and what are their political and socio-ecological implications for food governance? How do global governance frameworks articulate the role of cities in addressing food system challenges? Answers to these questions have crucial implications for excavating what it means to develop global food policy on the terrain of 'the urban' and, more broadly, for understanding how different framings of it can practically translate into effective and democratic multiscalar (food) policy.

Food Systems in the Global 'Urban Age'

Understanding 'the Urban' in Global Governance

Prominent international organisations such as FAO, UN-HABITAT, the European Commission (EC) and the World Bank tend to draw upon the *urban age* narrative to encapsulate present-day urban transformations. This discourse is based on two interconnected features: the prioritisation of 'smart growth' (in the form of technomanagerial solutions) to bolster capital accumulation; and the strategic management of risks (Soederberg and Walks, 2018). The rise of this narrative is intimately linked to the much-cited milestone in 2007 that marked more than half of the global population residing in cities (UNFPA, 2007). As Brenner (2017: 215) argues, this demographic threshold, which has become an obligatory starting point to

frame the *urban problematique*, is a statistical artefact "constructed through a rather crude aggregation of national census data derived from chronically inconsistent, systematically incompatible definitions of the phenomenon being measured". In this sense, the urban age discourse is framed primarily as a matter of controlling (political elites') anxieties related to 'unprecedented' city growth, which emphasises the need for governance processes orientated towards consensus-building and 'shared' economic outcomes.

The New Urban Agenda (NUA), which was adopted in 2016 by 193 members of the UN (UN-HABITAT, 2017), is particularly illustrative of the urban age tendency to frame economic growth as the panacea to achieving 'sustainable cities'. Indeed, the NUA emphasizes the role of cities in driving sustainability policy and action within its framework for 'inclusive' economic growth towards achieving the Sustainable Development Goals (SDGs). At the same time, the NUA also represents a step-change away from the framing of urbanisation as a process to be controlled towards a "renewed urban optimism" (Barnett and Parnell, 2016: 93) that extols the opportunities of sustainable urbanisation (Parnell, 2016). Similarly, the Urban Agenda for the European Union, launched in 2016 "with the aim of strengthening the urban dimension of EU policy" (EC, 2016: 4), foregrounds the role of city governments in implementing SDG11 (to "make cities inclusive, safe, resilient and sustainable"). Under this bourgeoning rhetoric, which reinforces city-focused conceptions of urbanity, it is proclaimed that cities can "save the planet" in the face of global crises such as climate change (Bloomberg and Pope, 2017), with mayors receiving increased attention as "new climate leaders" (Acuto, 2013). As highlighted by Brenner (2017), the assumption that cities are central to (good) global governance has become one of the key spatial ideologies of our time.

The rise of the city as a 'global actor' in sustainability efforts is intimately related to the increased focus that the urban age narrative has placed on the urban "as a 'measurable' entity, reducible to data streams and controllable through a range of new technologies" (Caprotti *et al*., 2017: 368). Such focus has facilitated the development of performance-based governance, centred on evidence-informed policy, which embodies its own "epidemiology of the urban" (Caprotti *et al*., 2017: 372) – predicated on the refinement of data, targets, identified risk groups and policy intervention (Barnett and Parnell, 2016). The pervasive use of metrics and indicators in urban policy is creating specific 'ways of knowing' that downplay, if not neglect, the role of formal and informal power structures in the inherently political development of 'urban knowledge' (Robin *et al*., 2017) and its circulation through city-networks (Acuto and Rayner, 2016; Davidson *et al*., 2019; Moragues-Faus and Sonnino, 2019).

The urban age narrative has been criticized for its tendency to conceptualise urbanisation as separate from the uneven processes of capital accumulation that drive it (Brenner and Schmid, 2014). In particular, the concept of planetary urbanisation has demonstrated the inherent limitations of the "numbers empirics" that emphasises the quantitative proliferation of cities (Merrifield, 2018: 1604). As a competing discourse, planetary urbanisation frames the urban as a *process* taking place at all spatial scales, defined by encounter, assembly and political struggle (Merrifield, 2013). In this perspective, urbanisation is contextualised by intensified flows of capital, labour, information and power, leading to a complex entanglement of the city and the countryside that produces an entirely urban world (Brenner, 2017).

The above insights provide a useful context to critically unpack, and take seriously, the ways in which the *urban* in food governance agendas is being conceptualised in international post-Quito development discourse and their (political) policy implications. In particular, we argue that engaging with the narratives of socially-embedded actors within dominant global institutions (and their rationalities and urban imaginaries) provides one novel avenue to enhance accounts of multiscalar urban food governance, which have tended to focus on case studies of 'local' food policy spaces (see Morgan, 2015; Lever *et al*., 2019).

Problematising the 'Urban' in Urban Food Governance

The limitations of generalised, narrow interpretations of the 'urban' are particularly evident in relation to dominant food security narratives that are based on neo-Malthusian arguments about a bourgeoning urban population in a resource-deficient planet. At the heart of this narrative (and its proposed agricultural-nutritional technocratic 'solutions') is a dualistic interpretation whereby a range of socio-spatial configurations traditionally understood as 'rural' have been obfuscated or simplified as merely extractive sites of multiple resources (water, energy, minerals) that fuel urbanisation processes (Spann, 2017). The deeper issue underpinning this conjecture is an urban-centric understanding of 'modernisation' and 'development' that assumes rural smallholders and the peasantry constitute a separate class waiting to be subsumed into industrial wage-labour (Sexsmith and McMichael, 2015). This interpretation naturalises and depoliticises rural poverty as merely a symptom of the absence of capitalistic 'development' and has traditionally rendered hunger and food insecurity in diverse urban areas invisible (Battersby, 2013).

Relational understandings of 'the urban' developed in political ecology are particularly helpful to challenge the urban-rural divide embedded into mainstream food security narratives, especially the pervasive neoliberal 'agriculture for development' agenda embodied in the SDGs (Spann, 2017). Indeed, an (urban) political ecology lens sees urbanisation as being continually (re)produced by socio-natural metabolic processes of circulation and transformation (Heynen *et al*., 2006; Doshi, 2017) that are simultaneously "local and global, human and physical, cultural and organic" (Swyngedouw and Heynen, 2003: 899). As a socio-natural metabolic hybrid, food is constituted in and through these circulatory processes (Shillington, 2017), which are shaped by unequal power relations and continuously (re)territorialised in contextual, situated ways. This relational approach re-orientates attention towards the hybridised socio-ecological complexity of food systems and moves us beyond the (over)emphasis placed on spatially-bounded food activities *in* 'the city' (especially urban agriculture) in discussions of urban food governance.

By emphasising the socio-spatial relations that *produce* complex food systems, political ecologists highlight uneven access to resources across communities and problematise rationalities that unreflexively apply urbanised planning logics of the Global North to the socioeconomic conditions, institutional realities and everyday urbanisms of the global South (Lawhon *et al*., 2014; Battersby and Watson, 2019). In doing so, this perspective underscores the necessity of drawing upon multidimensional, situated understandings of 'the urban' to inform policy – that is, interpreting local experiences in relation to global processes of socio-ecological change and intersectional difference (Robinson, 2006; Sheppard *et al*., 2015; Ruddick *et al*., 2018). To borrow from Haraway (1991), the "power of partial perspective" is a potent avenue to formulate diverse understandings of 'the urban'

as a socio-ecologically embedded endeavour, which is inescapably political and always in the process of becoming -- thus challenging a 'one-size-fits-all' approach to *urban* food governance.

Ideally, this understanding could translate, for example, into an emphasis on the 'city-region' as a normative concept for integrated planning and policy that addresses the networked nature of urban food economies and empowers communities to (re)shape their local food environments (Blay-Palmer *et al*., 2018). In reality, however, the reification of the 'urban' embedded in dominant governance narratives has led to a pervasive tendency to equate the 'city-region' with a 'universalising', territorially-bounded localism (Battersby and Watson, 2019) that can displace political responsibility (without commensurable power) to the 'local' in the context of extended forms of urbanisation (Coulson and Sonnino, 2019). There are important questions emerging here about the effectiveness of multi-level governance (as promulgated by global development strategies) to address interconnected *urban food system* challenges, when 'the urban' is shaped by contested socio-ecological relations and uneven power dynamics.

Researching the Global Urban Food Agenda

To unpack the discourses of urban food propagated by international organisations we adopted a mixed-method approach based on frame analysis and 18 informal (*n*=10) and formal (*n*=8) interviews with key stakeholders engaged with urban food governance at the global level. Frame analysis – a systematic approach within the constructivist tradition that is used to examine ideas, discourses and framings in policy processes (Björnehed and Erikson, 2018) – focused on policy documents produced by global organisations and city

food networks[1] between 2015 and 2019. This timeframe was selected to obtain insights into the evolving understanding of urban food policy and governance in the post-Quito period. Frame analysis entailed identifying the key narratives of urban food governance through thematic coding. Specifically, we focused on how food issues are framed as urban concerns, what urban food matters are prioritised or rendered invisible and the tensions of merging divergent socio-political objectives under an integrated framework.

In-depth semi-structured interviews were undertaken in 2019 with eight representatives from key international institutions and non-governmental organisations that play a strategic role in developing and implementing urban food initiatives. The interviews aimed to understand how stakeholders define the urban food agenda, to identify the trends or factors that they think are shaping its emergence and to uncover the role of their organisations in advancing it. Questions also focused on the challenges they encounter in progressing urban food issues, the knowledge and data gaps existing in relation to urban food systems and the opportunities for developing an urban food agenda at the global scale. These interviews lasted between 45 and 60 minutes, were digitally recorded and transcribed verbatim.

Formal interviews were complemented by ten informal interviews conducted at the FAO Headquarters (between May 2017 and November 2018) with high-level policy stakeholders,

[1] These include: UN-HABITAT, FAO, the World Bank, the WHO, the EC, the Global Alliance for Improved Nutrition (GAIN), the MUFPP, C40 Cities Climate Leadership Group, Local Governments for Sustainability (ICLEI) and EUROCITIES.

during which written notes were taken. All interviews were coded manually to ascertain key themes, which were triangulated with insights from the frame analysis.

Unpacking the New Global Urban Food Agenda

The City-Region as a Strategic Sociospatial Milieu for Integrated Territorial Development

The NUA occupies a prominent position in shaping understanding of why urban food systems have become a *global governance* concern. In particular, the importance placed on the "implementation of integrated, polycentric and balanced territorial development" (UN-HABITAT, 2017: 24) throughout the NUA translates, for stakeholders, into a territorialised understanding of food systems based on the idea of "urban-rural linkages". This implicates an emphasis on 'good' multiscalar food governance as a vehicle for economic development, based on increased 'connectivity' and 'efficiency': "ensuring that small-scale farmers and fishers are linked to local, subnational, national, regional and global value chains and markets" (UN-HABITAT, 2017: 24).

In this context, urban food governance was typically discussed as a process that should be directed towards 'linking' socio-spatial sites to deliver coordinated interventions. Informal interviews with FAO officials emphasised the need for a "territorial development approach" that reduces the "physical distance between urban areas and the rural poor" (Interview, FAO 2) through technological intervention and investment in social and physical food system infrastructure. It was posited that the key question an urban food agenda must address is: "how can we ensure that expanding urban demand translates into expanding

supply by small-scale farmers?" (Interview, FAO 4). Others stressed how the focus on "rural-urban linkages" connects directly with migration processes and the increasing hybridity of "livelihood strategies" across geographies -- for instance, the need to protect "traditional diets" (to avoid their displacement by consumption habits brought back by seasonal workers employed in cities) and the need to provide rural women (who are left alone when youth migrate) with the financial and educational support they need for their own livelihoods (Interview, FAO 5).

Embedded in the narrative on "strengthened rural-urban linkages" (Interview, FAO, 2) are the demand-side logics of neo-Malthusian approaches to food security (such as population growth and changing food preferences), with the numerical abstraction of a projected '9 billion' people expected to inhabit the planet by the year '2050' frequently evoked to frame the need for increased sustainable food production. This reflects an understanding of rural-urban linkages that is linear and unidirectional, based on the creation of more 'efficient' supply chains (for cities) that involve small-scale producers (the rural) as (potential) 'entrepreneurs' that must be incorporated into globalised markets and value chains (Sexsmith and McMichael, 2015; Spann, 2017). What emerges here is a capitalistic understanding of cities as engines of growth (to be fuelled by corporate-led and, increasingly, 'climate-smart' agriculture) via more efficient connections with their rural hinterland.

The concept of a "city-region food system" (CRFS), promoted by the FAO-RUAF *Food for the Cities Programme*[2] to implement the 2030 Agenda and NUA (FAO-RUAF, 2015), explicitly articulates "rural-urban linkages" as a "cross-sectoral, multi-level, multi-dimensional and multi-stakeholder approach" (FAO, 2016: unpaginated) that seeks to counteract the pervasive "silo mentality" (Interview, GAIN) that permeates food policy. Here the city-region is understood as a complex node of urban-rural (inter-)relations in which the CRFS works to rescale food governance to socio-spatial assemblages of territorially-embedded interactions (such as bio-regional ecosystems), promoting 'new' modes of urban or peri-urban agricultural/agroecological production.

At the institutional level, the focus on the CRFS was explained as strategically important for traditionally 'rural' and agriculturally-orientated organisations, such as FAO, in supporting their transition to 'the urban' as a vital entry point for food security interventions. For example, an FAO interviewee articulated that in the initial stages of the drafting of the *Framework for the Urban Food Agenda* (2019) "we could see people assuming that urban means leaving behind the rural areas. It then tells you that still the systems-thinking needed work, and there's a lot of fear to be in a sort of city-centric world" (Interview, FAO 3). While reform of the FAO (between 2005-12) endeavoured to reinforce the inseparable interconnections between agriculture, food and nutrition, in practice, established organisational siloed working persists. Indeed, our interviews indicate that institutional lethargy, path dependency and conceptual 'lock-ins' within international organisations and national governments can constrain cross-sectoral (food) systems thinking and

[2] See: http://www.fao.org/in-action/food-for-cities-programme/en/.

interconnected 'urban' modes of governance: "Overcoming silos within the organisation is really difficult and there is a certain inertia, but I think we find the same inertia -- probably even worse in fact -- in member-states" (Interview, EC).

Strengthening Multi-Level Governance

The institutional "disconnect" in terms of priorities, resource capacity limitations and uneven power relations between multiple governance scales was highlighted as a key impediment to coordinated action for sustainable food system transformation, as discussed by several high policy stakeholders:

> "UN agencies have as clientele other governments [...] we serve countries, we serve states, we don't necessarily serve the local governments […]. And every time that FAO plans a project in countries we should go through our representative in the country and clearly we need to get the clearance from the state for starting projects. So, if there is an issue between the state and the local government that may create some uncertainty." (Interview, FAO 3)

> "FAO and GAIN, we have been talking about how do we try and progress the disconnect between city, national and global? […] and it has really come from the city governments themselves, saying 'Our hands are often tied with what we can and can't do at local level. And how do we try and get the conversations happening as to how the national and global agendas can be more supportive of what cities are doing?' […] in terms of the trade agreements and all of those higher-level policy agendas that will

> often control or restrict what city governments can do at the local level." (Interview, GAIN)

The above extracts highlight the diverse and systemic challenges surrounding notions of urban agency in food governance debates, which are contextualised by fragmented responsibility for food security, asymmetries of power between food system actors and, for some, the increasing corporate control exercised by agribusinesses and transnational companies:

> "The other big problem, in general terms, is private sector, big conglomerates, who talks with whom? We know many of the things that cities are trying to do, somehow rely on goodwill as well, and it needs the involvement of big players from the private sector. […] I know there is some mapping of these private sectors […] to try to understand where the roots are, where the feet of these giants are. Is this guy based in the Netherlands? So let's try to understand whether Amsterdam or Rotterdam can open a discussion with the Unilever guys, and see how much we can plug in to have the same kind of work replicated in other cities around the world." (Interview, C40)

As stated by this practitioner, a key issue that is frequently overlooked by international development institutions in discussions of 'effective' multi-level governance is the power of, and lack of transparency surrounding, multinational conglomerates that insidiously shape urbanised food environments. Indeed, stakeholders predominantly emphasised reformist interventions such as increased technical/financial capacity and greater forms of (political)

empowerment of local governments, reflecting post-political urban age narratives of 'good' (urban) governance.

Interconnected Urban Food Governance

The belief that 'cities', in terms of institutional assemblages (municipal governments) and actors (mayors), are powerful enablers of food system transformation draws upon an understanding of urban agency that asserts the political (and sometimes moral) responsibility of 'cities' as "agents of change" (Interview, EC). As elucidated by an international city network practitioner:

> "The main point there was we [municipalities] do have power to shape the urban food system. Why are we not using those? Why is food so out of the urban agenda? […] Cities are basically finally conceiving themselves as players and real actors able to shape their food system, which was not the case just a few years ago." (Interview, C40)

Many emphasised the "pioneering" role of the MUFPP, launched in 2015, in raising the profile of innovative food system governance frameworks emerging in diverse urban areas and helping to gather momentum for broader political support from elite governance actors[3]. However, interviewees also stressed how translating the MUFPP commitment to "healthy and affordable food to all people in a human rights-based framework" *into practice* across a global landscape of over 200 cities is a large challenge that requires "investing in

[3] Notably, the MUFPP emerged from the EU-funded Food Smart Cities for Development project, which aimed to "show the potential of European decentralized cooperation in the fight against poverty and hunger" (FSC4D, 2016: 4).

food as a means to basically tackle poverty, tackle climate change, tackle health inequalities" (Interview, C40). The voluntary nature of city food network declarations and the subsequent requisite of political will (and resources) to integrate food into the municipal agenda translates into uneven coverage and action – especially when food is viewed as "another additional policy demand" (Interview, C40), rather than as a systemic entry point to develop integrated urban strategies across different sectors.

The MUFPP also highlights the importance of city networks as conduits whereby ideas, concepts and 'best practice' are circulated across diverse socio-spatial contexts facilitated by information and communication technology (see RUAF and ICLEI, 2013; BCFN and MUFPP, 2018; FAO, 2018b). Indeed, one of the most powerful tools shaping the development of a translocal urban food agenda is the emphasis on the sharing of examples of 'good practice' that are able to 'travel' beyond their place-based contexts – with their diverse inhabitants, resources, problems and needs – and highlight 'general' principles and interventions that can be enacted in other milieus. The circulation of policy knowledges and discourses 'embedded' in, and animated by, case studies, which reflects the accelerated "policy mobilities" that characterise neoliberal governance (Peck, 2011; McCann and Ward, 2012), takes place through multiple formats, including internet platforms, edited books (Deakin *et al*., 2016), workshops and events (such as the ICLEI-RUAF Annual Global Forum on Urban Resilience and Adaptation) and targeted information products (BCFN and MUFPP, 2018; FAO, 2018b).

For the coordinators of city networks, the municipal agendas and political orientations of mayors reflect growing recognition that transboundary processes (such as climate change

and migration) directly affect their cities, increasing their legitimacy and ability to act independent of state priorities or activities:

> "[…] in terms of the national governments, if they don't have the political strength to go and clash against the big conglomerates […] they might want to follow on the path that I hope some brave mayors will take in the next months. So Sadiq Khan having done all the junk food advertisement [work], that is going to be a big clash […]. He will have a very big push back from these guys. What is the UK government going to do about that? […] This is where I feel a little bit frustrated and also scared." (Interview, C40)

Tensions between the agendas of mayors and national government priorities (or inaction) problematise the hegemonic imaginary of nation-state sovereignty. City networks were indeed discussed as more flexible and responsive compared to the inertia of state apparatus: "the silence of the national governments is literally overwhelming […] in general I don't see that much action coming from national governments and this is always striking me" (Interview, C40).

In this context, the formation of city food networks[4] was described as an integral dimension of improved interconnected governance, facilitating "connectivity" and promoting the integration of food into broader urban strategies; as stated in the NUA, this should be based on "the coordination of food policies with energy, water, health, transport and waste" (UN-

[4] Examples include ICLEI's CITYFOOD, which offers assistance to over 1,500 cities, towns and regions to develop innovative food system work, and C40's Food Systems Network, which helps cities to reduce the carbon emissions of their food systems.

HABITAT, 2017: 32). However, creating synergies between (artificially divided) policy domains was perceived to be surprisingly slow: “the whole thing between climate change, food and urbanisation, this is something that hasn’t hit the radar as much as it should. So we have got climate change organisations… I mean C40 has now started to look at food, but it is taking time” (Interview, GAIN).

City food networks are characterised by complex, non-linear patterns of communication, exchange and sharing of information, frequently mediated by actors with detailed knowledge of the global food governance landscape, as described by a practitioner: “If New York calls me and tells me that there is a big problem with a big programme […] then I know that other cities on the other side of the world […] found a solution some time ago, so I put these guys in contact” (Interview, C40). The limitation of resources – “finance, organizational and human” (Interview, MUFPP) – interweaves different cities (with differential discursive power, political agency and local governance capacities) within relational multiscalar networks entangled in complex matrices of international organisations, philanthropic foundations, NGOs and private interests:

> “[…] what we have seen within C40 but also other city networks is that the work we are doing is… I would say it is very useful, but it is very difficult to ‘sell’, […] to explain to external partners, and that of course goes directly into the funding bit. […] We have got good partners that are supporting us in this work, but I know many city networks […] they are struggling in finding support.” (Interview, C40)

In short, city food networks are creating political space beyond the nation-state and global institutional frameworks to connect (particular) people and places and support knowledge-exchange, collective learning and capacity-building. Their proliferation, however, raises concerns that these fluid, translocal governance spaces may intensify power asymmetries within and between civil society actors, everyday governance bureaucrats and policy elites. This highlights the importance of moving away from vague notions of 'accountability' and 'connectivity' to a re-politicised examination of the differential positions of power that shape participation -- and their (ambiguous) role in influencing and 'steering' international food policy.

A Paucity of Urban Food System Data in the Context of Uncertainty

The role of city networks in shaping the 'new' urban food agenda aligns with broader sustainability paradigms of urban 'resilience' that embody a model of advocacy-orientated, and increasingly evidence-based, socio-technical governance. In this context, "lack of consistent, comparable and relevant data and a weak knowledge base" (World Bank *et al*., 2017: 5) are identified as significant challenges for advancing urban food agendas:

> "there are obviously lots of data gaps, and the difficulty is always between having enough information that is context-specific enough for people to be able to make decisions, but without trying to reinvent the wheel every time we go to work in a different city […]. We still don't know enough about what people are eating and the food choices they are making and why they are making them." (Interview, GAIN)

Furthermore, since 'statistics' tend to prioritise what the state wants to know, indicators are engrained in established governance trajectories: "the shift towards local governments as important actors has not necessarily shifted far enough to separate them from the larger state or nation apparatus"; therefore, data can often be "divorced from the contextual realities" (Interview, ICLEI 1). Indeed, "where there is robust data on the issues […] they are rarely disaggregated to the regional or city level" (Interview, ICLEI 2). This draws attention to the contested 'spatiality' of data generation and its (incongruous) relationship with policy formulation and decision-making processes increasingly being emphasised at the 'local' scale. The methodological difficulties and uncertainties in mapping complex food systems are also highlighted as a critical obstacle in implementing policy interventions:

> "there's a huge knowledge gap in mapping food systems as they are. There's a gap in skills to actually do the mapping […] and also there's a gap in expertise, in learning how to identify leverage points at local level. […] We would need to have methodologies and tools to actually understand, map, characterise the local food systems." (Interview, EC)

As discussed by several interviewees, the administrative, political and analytic capacity of municipal governments with differential resources to collect data is a challenge: "we don't have data on emissions coming from urban food production, that is a disaster […] we don't have data on junk food consumption" (Interview, C40). This is especially an issue in cities of the global South, where informal circulatory flows are pervasive, capacity to collect data can be weak and urbanisation is most intensified:

> "There is very little on food metabolism, because it's an incredibly difficult resource to track […]. The first challenge is that it's got so many individual actors with different social and economic motivations, so getting that data can be very difficult. […] How long has that food travelled? What mechanisms were used to produce that food? […]. From a metabolic perspective, we want these data because we want to identify the different stages of any resource system where you can make simple, but high-level interventions." (Interview, ICLEI 1)

The above extract highlights that the pragmatic reality of advancing an urban food agenda lies in the symbolic *and* material ability of data to act as a key 'evidence-based' negotiating tool that appeals to organisational rationalities based on technocratic governance mechanisms. For example, the development of the *MUFPP Monitoring Framework Indicators* is articulated as a way "to help cities build knowledge and the evidence to formulate policies, prioritize interventions, target resources and advocate for extra funds from national governments and external donors" (MUFPP, 2017: 5).

The reliance on statistical information and indicators – turning complex systems into universal and comparable objects to demonstrate 'social change' – was highlighted as an important dimension of institutionalising urban food governance. For example, while discussing informal food vending in the global South, an FAO official stressed the importance of "diagnostics" to understand whether the problem of regulation lies with the vendor or the regulator or both – a type of knowledge that is necessary for FAO to "better

understand its role" (Interview, FAO 6). As described by another interviewee, the politics of data in relation to informality is particularly complex:

> "It is a big misconception about informality, which has … many urban decision-makers being dismissive of it, or being afraid of it, or even if they're accepting of it, not quite knowing what to do about it. […] People who have informal enterprises have invested 100 percent of their equity in these businesses. They're private sector. Just because it doesn't appeal to aspirational cities, we are dismissive of that." (Interview, ICLEI 1)

Overall, quantifiable data are seen as a universal language; in the words of the ICLEI-C40's report on climate change adaptation, "data speak louder than words" (ICLEI and C40, 2018). It was articulated that it is much more difficult for the state or mayors to ignore or reject *quantitative data* compared to normative demands for more just food systems:

> "if you have data, you have an evidence, you have a problem, you can showcase that problem and then immediately comes the reaction. […] This is how it works, I mean if mayors realise they have got a problem with obesity, with food insecurity, with food waste, if they feel the pressure, then they do look for good practices to […] create some kind of reaction to those." (Interview, C40)

As the above extract illustrates, food system actors often formulate policy intervention in a reactionary manner and can be pressurised to act when presented with 'evidence-based' data that reduce political space for contestation. The issue here is that the increasing emphasis placed on measuring and monitoring complex food system dynamics risks

misconstruing means (quantitative measurement for tracking social change) for ends (qualitative transformation of social relations) (Sexsmith and McMichael, 2015).

'Smart' Urban Food Futures

The World Bank and FAO knowledge-product *Food Systems for an Urbanizing World* exemplifies the exultant narratives of 'Big Data analytics' to model and monitor complex food systems:

> "Food systems are highly complex networks that will require Big Data analytics as a backbone to operate effectively and sustainably in the future. Urban food strategies and actions should be derived from and underpinned by an evidence-based understanding of the food system at city scale and from tracking and analysing associated outcomes for different groups […]. Achieving this detailed understanding, however, will depend on significant investments in urbanized agribusiness data systems; on specific socio-economic, demographic, financial, technical and institutional analyses that present policy and investment options; and on increased capacities of municipal officials and diverse stakeholders to effectively assimilate and use the information in decision-making." (Tefft *et al*., 2017: 62)

The emphasis placed on Smart City technologies and Big Data to collect information through the Internet of Things and then analyse and monitor data through a web of metrics, indicators and measurement tools reflects the pervasive prioritisation of interventions based on technomanagerial fixes (Kaika, 2017):

> "The Smart Cities of tomorrow, of which there will be an estimated 88 by 2025, will be harnessing technologies such as information technology and sensors, to improve the quality of life of residents, manage available resources in an economically sustainable manner and reduce environmental pollution. In fact, Smart City technologies will grow to an industry worth US$27.5 billion by 2023." (Tefft *et al*., 2017: 61)

The Smart City has become a hegemonic 'utopian' framing device of the urban age that places socio-technical infrastructures, ICT and Big Data at the centre of the pursuit for sustainable development (Wiig, 2015). In this narrative, as articulated by international institutions (World Bank, 2010; EC, 2010; FAO, 2011), urban food sustainability is equated with 'smart' urban food systems in which technologies facilitate sustainable growth and represent a new market to colonise:

> "While larger food businesses and 'smart' cities already use Big Data techniques for their planning, investment use and business decisions, their application to the analysis of food issues as an input to municipal-level decision-making will become increasingly important for aspiring 'food smart' urban areas." (World Bank *et al*., 2017: 22)

This technocratic emphasis differs significantly from grassroots movements that explicitly link the 'smart' in the notion of *food smart citizens* to the nurturing of embodied, contextual, geo-historically grounded knowledge and problematise what information is propagated and obfuscated by corporate food actors: "Rebuilding the broken food system, its ecological cycles and the broken links between the city and countryside is creating a Food Smart City peopled by food smart citizens who know what they are eating and where their

food comes from" (Navdanya, 2016; unpaginated). In this instance, the transformative power of 'smartness' in relation to urban change is grounded in indigenous knowledge and socio-cultural innovations (e.g., agroecological practices) that provide the pathways to transparent, inclusive, diverse and healthy food systems.

By contrast, as we have discussed, the increasing permeation of 'smart city thinking' into food system governance debates reflects a broader neoliberal belief in the potential of (top-down) socio-technological fixes to address multifaceted socioecological crises (Wiig, 2015; Kaika, 2017). In relation to food systems, this reflects a longer trajectory of international development organisations framing food security through a lens of (neo)productivism and unbridled faith in technological innovation 'solutionism' of 'efficiency' and 'modernisation'. This approach sidesteps structural inequalities that permeate foodscapes (particularly in relation to land, labour and capital) and under-emphasise the vital role of processes of democratisation and empowered self-sufficiency in creating urbanised food systems that reflect diverse imaginings and practices.

Discussion

International development organisations are increasingly engaging with a global agenda for integrated, multiscalar food governance that revolves around three main conceptualisations of 'the urban': the city-region (food system) as a *territorially-integrated node* of a sociospatial architecture to reconfigure 'rural-urban linkages'; the city as a *strategic site of intervention* and experimentation based on a socio-scalar spatial imaginary in which the urban is the privileged locus for social innovation; and the city as an assemblage possessing

de-centred urban agency as *part of interconnected food networks* in a global framing of multiscalar urbanisation processes and socio-environmental challenges.

Embedded in these representations and, more broadly, in the new global urban food agenda is a pervasive emphasis on integrated territorial development. Indeed, concepts such as the CRFS, rural-urban linkages and place-based approaches emphasise reformist (and sometimes progressive) food system dynamics (such as environmental sustainability and social justice) and activities that '(re)connect' food consumers and producers (Blay-Palmer *et al*., 2018). However, focusing primarily on rural-urban *linkages* continues to reinforce the socio-political dichotomy between consumers and producers and frames improved *connectivity* primarily as a conduit for facilitating the fluidity of commodities, capital and labour. The main issue, we have argued, is that emphasis is increasingly placed on a 'new' territorially-orientated localism to the detriment of the relational complexity of metabolic processes that entangle humans and nonhumans (i.e., food systems) within multifaceted geographies of urbanisation and broader ecological, economic and institutional governance structures and power relations (Battersby and Watson, 2019.

Notably, the increasing focus on the 'urban' was frequently explained as institutional common sense: a reaction to the 'reality' of urban demographics, which necessitates a "more systemic and holistic approach" to food governance (FAO, 2019: 10). However, implementing multiscalar governance in practice was impeded by insufficient empowerment (both political and financial) of local governments, limited technical capacity and scarce data regarding food system metabolic flows. Significantly, what was downplayed within the interview narratives was the political contestation surrounding what knowledges

and experiences are considered as necessary to understand the complexity of food system metabolisms across a range of geographies and scales.

Within established governance processes, actors emphasised the unclear mechanisms that connect multiple scales, which impede collaboration and coordination of policies and action. A pervasive inertia and silo mentality at the local, national and translocal level, whereby 'food system issues' are typically divided across multiple departments, ministries or state agencies, was also identified as impeding integrated global food governance. In this sense, international development organisations such as FAO are (re-)positioning themselves as 'knowledge brokers' and 'facilitators' between local and national governance in fostering dialogue between multiple stakeholders through various food system platforms. The issue here is that behind ostensibly benign attempts to restructure urban food governance lie pervasive power relations and (neoliberal) urban age narratives of 'sustainable', 'resilient' and 'smart' cities. Indeed, the growing (techno-managerial) emphasis that elite actors place upon the possibilities and intersections between urban food systems governance and the smart cities concept (Tefft *et al*., 2017; World Bank *et al*., 2017) highlights the increasingly data-led means by which questions of sustainability are approached. In this context, 'smart' technology is emphasised as providing policy-makers and planners with new pathways to develop more 'efficient' and 'productive' socio-ecological relations.

This is not to deny the diversity of critical or radical engagement with food as a political form of contestation in relation to heterogenous community and grassroots movements. Rather, as highlighted by our data, it speaks to the increasing technocratic logic of governance by indicators, measurements and monitoring processes (Kaika, 2017) that

simplifies the complexity of (food system) processes and reproduces neoliberal conceptualisations of 'success'. There is a danger that standardised measurements, metrics and indicators will flatten a complex geography of diverse socio-spatial contexts that have differential capacities (in terms of planning, mayoral influence and data collection) and power to leverage systemic processes of change. Furthermore, indicators are not neutral tools; what, how and why we choose to measure, monitor and evaluate within particular dimensions of (food) systems and who has the right to measure are deeply political issues, reflecting pervasive power relations, vested interests and political agendas. Indeed, indicators can measure what data already exist or are easily quantifiable but they do not necessarily reflect how to measure progress towards normative ends (Rosga and Satterthwaite, 2009; Sexsmith and McMichael, 2015).

Practically, an important implication of our analysis is the need to develop participatory methodologies that draw upon experiential knowledges of citizens to collect, map and analyse data to inform polycentric and plurivocal governance. Certainly, context-specific information (which is currently absent or insufficient in many places) is vital to develop progressive and place-based food policies and monitor how they translate into enhanced human-nonhuman flourishing, capacities and entitlements. This calls for research that supports vernacular and socially-innovative 'smart food urbanisms' emerging from below, looking at the city through the eyes and embodied experiences of residents (see McFarlane and Söderström, 2017) to develop alternative forms of urban knowledge (or ways of *knowing the urban*) and participative technologies to tackle multiscalar socio-environmental crises.

City food networks have a key role to play here. With their emphasis on peer-to-peer learning and capacity-building, they have opened up political space beyond entrenched nation-state boundaries and institutional 'lock-ins' to develop supportive partnerships and practice-based solutions (Acuto and Rayner, 2016). Future research will have to investigate what stakeholders are included in/excluded from these networks, in addition to uncover the concrete capacity of political actors working at the intersection of tension-laden governance regimes to enact new kinds of urban agency and pluralise the voices, policy formulations and food system discourses that are opened up (or shut down) by translocal networks.

Some Conclusions

Urban food geography and food system planning cannot remain 'peripheral' to discussions in urban studies. As our analysis shows, they provide productive terrain to develop theoretically and empirically novel insights into at least two main areas: the *problematisation of 'the urban' in governance* frameworks*;* and the contested emergence of *smart (food) urbanisms*. A crucial next task for urban (food) scholars is to critically excavate the interconnections between these two areas and explicate the possible strategies for inclusive and empowering multi-level food system governance. At the heart of this endeavour should be the adoption of a pluralised, situated and diversified conceptualisation of the urban (such as that offered by political ecology) that counteracts universalising tendencies to simplify complex socio-ecological metabolic processes to mere data, indicators and targets. In particular, the contested politics of the 'smart food city' opens up new questions that require urgent attention, particularly the role of technologies (for gathering information, sharing data and enhancing communication) in addressing food insecurity and the ways these can be driven, or co-opted, by capitalistic logics.

To be politically meaningful, inclusive and transformative, the new urban food agenda must enable citizens to *produce the urban* and demand a right to urban (food) metabolism (in the Lefebvrian sense; see Shillington, 2013). This requires orientating attention away from the 'smart citizen' to the *empowered food smart citizen*. Thus, urban food governance must not fetishize the urban as a discrete spatial 'container', but instead embody a relational ontology that fosters possibilities for political debate, concerted action and, ultimately, transformative social change. Such an approach can help to cultivate a highly textured conception of the 'urban' based on the visceral experiences and material embodiment of urban metabolism that shape multiscalar socionatural flows (Lawhon *et al*., 2014; Doshi, 2017). It can, in other words, help us to see the 'urban' (food system) as both a process and an outcome – both of which are continually performed and, consequently, can (and should) be reconfigured in more democratic and inclusive ways.

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